

OUTSTANDING ECONOMIC COLEOPTERA ACTIVITY—1953¹

By JOSEPH W. GENTRY²

Several coleopterous insects were exceptionally abundant on cereal and forage crops over wide areas during the 1953 season. Clover leaf weevil (*Hypera punctata* (F.)) was unusually numerous and destructive in many sections. Widespread abundance was recorded on clovers in Delaware, Ohio, and Missouri; and on alfalfa and clover in Kansas, Indiana and Illinois. The insect caused serious damage to alfalfa in Colorado and was more damaging than for many years in Utah. There were scattered reports of alfalfa weevil (*H. postica* (Gyll.)) damage; however, Utah had less than normal. This insect, which was recently discovered in the eastern states, caused heavy loss to alfalfa in several counties of Maryland. Severe injury to first-crop alfalfa was noted in South Dakota. The corn flea beetle (*Chaetocnema pulicaria* Melsh.) appeared in unusual numbers during the spring in several eastern and mid-western areas. The infestation was greater than at any time in the last 20 years in Illinois, and seriously damaged many early-corn plantings. Indiana and Ohio reported abnormally heavy infestations. Stewart's disease, which followed the flea beetle attack, was severe and widespread on corn in Ohio and caused heavy loss to this crop in Indiana. A high incidence of the disease was also reported from New Jersey and Massachusetts.

Corn billbugs (*Calendra* spp.) caused severe damage to corn in isolated plantings in Ohio, Missouri and Indiana. Adults of corn rootworms (*Diabrotica longicornis* (Say) and *D. undecimpunctata howardi* Barb.) were abundant in corn in Iowa in July and adults of the latter species were abundant on several crops in southern Missouri. *Diabrotica virgifera* LeC. adults damaged corn in areas of Colorado and in many counties of Nebraska. This species was also abundant in northern Kansas, while an undesignated species caused some injury to corn in eastern South Dakota. Heavy flights of May beetles (*Phyllophaga* spp.) were observed in Wisconsin and Kansas and at Brookings, South Dakota. False wireworms (*Eleodes* spp.) caused an estimated loss of 2 million dollars to spring and winter wheat in eastern Washington. Adult collections indicated that at least three species were involved. Although sweetclover weevil (*Sitona cylindricollis* Fahr.) injury was less than 1952 in Kansas, the insect was extremely abundant and de-

¹This summary was compiled from the Cooperative Economic Insect Report.

²Economic Insect Survey Section, U. S. Department of Agriculture.

structive to second-year clover in South Dakota. Damage was also noted in Flathead County, Montana. Rather heavy infestations of vetch bruchid (*Bruchus brachialis* Fahr.) occurred at Grand Rapids, Paw Paw and Wixom, Michigan. Clover root borer (*Hylastinus obscurus* (Marsh.)) was exceptionally abundant in second-year clover near Huntington, Indiana; and second-crop red clover was seriously reduced in Ohio by this pest and dry weather during the summer.

Damage to red clover in Willamette Valley, Oregon, by a nitidulid (*Meligethes seminulum* LeC.) was more severe than in past years. This insect, not known to occur in the United States outside of Oregon according to reports, is extremely difficult to control. The adults attack the seed crop of clovers. Heavy populations of southern masked chafer (*Cyclocephala immaculata* (Oliv.)) were found in wheat fields in some area of Kansas during the fall. As high as 35 grubs per square foot of soil were recorded in Rice County. Very early-planted wheat was destroyed to the extent that some replanting was necessary.

Although there was no general outstanding coleopterous damage to fruit crops, some of the activity was noteworthy. Green June beetle (*Cotinis nitida* (L.)) adults were extremely abundant in orchards and corn in southwestern Missouri in July and caused heavy damage to ripening fruit. Large populations were also reported from several areas of North Carolina and Fayette County, Pennsylvania. There was a general infestation of grape flea beetle (*Altica chalybea* (Ill.)) in Chautauqua County, New York during June and an extremely heavy population around Fairview, Pennsylvania. This insect caused damage in an extensive area around Meridian, Mississippi, where infestations were serious on both muscadine and bunch grapes. Plum curculio (*Conotrachelus nenuphar* (Hbst.)) was unusually abundant in the Hudson Valley of New York.

On truck crops, Colorado potato beetle (*Leptinotarsa decemlineata* (Say)) was unusually heavy and difficult to control on Long Island, New York, and more abundant than usual on tomatoes in upstate areas. North Dakota also reported difficulty in controlling this insect on potatoes in the Red River Valley area. Vegetable weevil (*Listroderes costirostris obliquus* Klug) was a major pest of vegetables in Louisiana during the spring. Populations of pea weevil (*Bruchus pisorum* (L.)) were lowest in many seasons during June in northern Utah. *Brachyrhinus* spp. were a chronic problem on strawberries as well as other small fruits in Washington. Rose chafer (*Macrodactylus subspinosus* (F.)) infestations were very heavy in vicinity of Burlington, Vermont. Strawberry

weevil (*Anthonomus signatus* Say) was very abundant and damaging in strawberry plantings in the southern counties of Minnesota. Seventy-five percent of buds were cut in plantings south of Minneapolis. Wireworms (Elateridae) caused severe injury to crops in areas of Minnesota during June. *Conoderus vagus* Cand. was found to be the species responsible for major wireworm damage in Charleston, South Carolina and Hastings, Florida areas.

As usual, boll weevil (*Anthonomus grandis* Boh.) was of major concern in many of the cotton-growing states. Infestations were unusually heavy in the cotton areas of Virginia, North Carolina, South Carolina, Georgia. Alabama and Tennessee also had very heavy infestations. The infestation in North Carolina was the heaviest since 1950.

Although complete data on outstanding forest insect conditions for 1953 are not yet available, the following notes are of interest and importance. Heavy infestations of Black Hills beetle (*Dendroctonus ponderosae* Hopk.) in some national forests of Colorado and Wyoming were treated during the year. The insect continued in outbreak numbers in forests of southern Utah. Southern pine beetle (*Dendroctonus frontalis* Zimm.) appeared in outbreaks in certain central western North Carolina counties, and very heavy infestations of Engelmann spruce beetle (*D. engelmanni* Hopk.) were reported from some national forests of Colorado. Elm leaf beetle (*Galerucella xanthomelaena* (Schr.)) abundance and damage occurred in many states.

New Records and Extension of Infestations

Heavy infestations of a dermestid (*Trogoderma granarium* Everts) were discovered in stored-grain elevators in Tulare County, California, during November, 1953. So far as can be determined, this is the first record of occurrence of this insect in the Western Hemisphere; however, surveys subsequent to the discovery in California showed that the species may be quite widely distributed in the State. It was found that heavy infestation occurred in a warehouse in Fresno as early as 1946, reaching a peak in 1949. Previous known range of this beetle is Eurasia, including England and Japan; Philippine Islands; Madagascar, and Australia. It is probably native to southern Asia. Recorded hosts and foods include all stored grains; cereal products; malt in breweries; dry animal matter, such as hair and hide.

The occurrence of sweetclover weevil (*Sitona cylindricollis* Fahr.) in Idaho was established for the first time in 1953. Specimens collected at Pocatello and Arco in 1950, at Hot Springs, Owyhee County, in

1951-52, and Idaho Falls in 1953 were identified as this species by R. E. Warner.

Sand wireworm (*Horistonotus uhlerii* Horn) was found on corn in Robeson and Bladen Counties, North Carolina. This is believed to be an extension of the known range of this insect in the State. Adults of yellow-margined leaf beetle (*Microtheca ochroloma* Stal) were collected for the first time in Marengo County, Alabama. These specimens were found feeding on Irish potato, which is believed to be a new host record. Smaller European elm bark beetle (*Scolytus multistriatus* Marsh.) was collected in Los Angeles County, California, and Kay County, Oklahoma for the first time. Several new infestations of white-fringed beetles (*Graphognathus* spp.) were reported from infested states, including North Carolina, South Carolina, Alabama and Mississippi. Japanese beetle (*Popillia japonica* Newm.) was found in conspicuous numbers in Newton County, Indiana and Iroquois County, Illinois. The extent of the infestation indicates that introduction occurred at least 6 years ago. The insect is well established in a typical corn belt. New county records for alfalfa weevil (*Hypera postica* (Gyll.)) include Jackson County, South Dakota and Chester and Delaware Counties, Pennsylvania. A northward expansion was recorded in Montana. Vegetable weevil (*Listroderes costirostris obliquus* Klug) severely damaged tobacco plants in the field in Horry and Dillon Counties, South Carolina. Although larvae have been known in tobacco plant beds in this State since 1940, this is the first instance, so far as known, of damage to field plants. According to available reports, this insect was recorded feeding on tobacco plant beds in Virginia for the first time in 1953.

PYTHO PLANUS, Herbst IN OREGON

About 25 specimens of pupae and freshly emerged adults of this beetle I collected from under bark of Western Yellow Pine (*Pinus ponderosa*, Lawson) in the vicinity of Union Creek, Jackson county, Oregon. In the course of repeated visits between September 3-12, 1951 the beetles were found emerging only under bark of one large log of slight degree of disintegration. No larvae however were present during that time. Since *Pytho planus* had not been reported in the literature from Oregon this record presumably represents its first occurrence in that state.

BORYS MALKIN, *University of Washington*